



Higgins and Associates, LLC

April 8, 2010

Mr. Chad Cross, Industrial Hygienist
Denver VA Medical Center
1055 Clermont Street
Denver, Colorado 80220

**RE: Limited Lead-Based Paint Survey; Multiple Buildings
Denver Veterans Affairs Medical Center (VAMC)
Denver, Colorado**

Dear Mr. Cross:

Per your request, Higgins and Associates, LLC (Higgins) conducted Limited Lead-Based Paint Survey services (assay) on selected exterior surfaces at buildings 1, 6, 7, 8, 15, 18, 19, 20, 25, 26, 38 at the Denver VAMC. The survey was conducted on February 17, 2010.

A Higgins subcontractor, Accurate Lead Testing (ALT), Colorado State Certified Lead-Based Paint Inspector/Risk Assessor performed a visual inspection and testing of identified painted surfaces. ALT observed deteriorated impacted painted surfaces at the exterior of buildings 6, 15, 18, 26.

The painted surfaces were tested by the X-ray fluorescence method using a *Scitex*® spectrum analyzer (direct-reading) instrument. Testing results demonstrate that lead-based paint [equal to or greater than the U.S. Environmental Protection Agency (EPA) regulatory limit of 1.0 milligrams per square centimeter (mg/cm²)] was found on some building exterior surfaces assayed. These surfaces should only be disturbed under the guidelines established by the EPA (40 CFR 745.324). The testing scope of work can be found in **Attachment C**.

Before and after testing, three instrument calibration checks were assayed on National Institute of Standards and Technology standard reference material. Results of the calibrations indicate that instrument performance was within the manufacturer's tolerance specification during the survey. The data table of testing results can be found in **Attachment A**. The column labeled "k_gen" are the results of the XRF testing (note: a negative number in the "k_gen" column is equal to 0).

Although the testing results for some identified painted surfaces demonstrate no lead-based paint was found in accordance with the EPA regulations (40 CFR 745.324), the Occupational Safety and Health Administration (OSHA) requires any level of lead involved in paints, employers must comply with the exposure assessment measures and applicable protections of OSHA's *Lead in Construction* standard (29 CFR 1926.62). Employers must demonstrate that employees are either exposed to levels of lead below the action level (30 micrograms per cubic meter of air) or no airborne concentrations of lead are generated. The results of the exposure assessment will determine whether further protections and requirements of the standard apply.

OSHA requires that the identified painted materials (greater than 0% lead content) present a lead-based paint hazard and the paint should be removed by a person trained in lead-safe work practices. Furthermore, a job hazard assessment (JHA <http://www.osha.gov/Publications/osh3071.pdf>) and inhalation exposure monitoring (1910.1025(d)) should be performed during the lead-based paint removal work to ensure worker health and safety protection.

We recommend that this report be kept on file for the life of the facility.

Higgins and Associates appreciate the opportunity to provide quality environmental, health and safety professional services to the Denver VA Medical Center. If you have any questions regarding this report, please contact us at (303) 708-9846.

Sincerely,
Higgins and Associates, LLC



Mike Semonisck, MS, BS, ABI, AMP, APD, AMS, CMI
Manager of Asbestos/Mold Assessments

Attachments:

- Attachment A – Testing Results
- Attachment B – CO Lead Inspector/Risk Assessor Certification
- Attachment C – Scope of Work



ATTACHMENT A
Testing Results



DATA

result	id	roomdesc	wl	compdesc	subdesc	condesc	colordesc	k_gen
Unknown	3	Calibration		*	*	*	*	0
Inconclusive		Calibration	*	*	*	*	*	1.028
Inconclusive		Calibration	*	*	*	*	*	0.957
Inconclusive		Calibration	*	*	*	*	*	0.913
Negative	1	Bldg.38	1	Air Handler	Metal	Poor	White	0.257
Negative	2	Bldg. 38	1	Air Handler	Metal	Poor	White	0.223
Negative	3	Bldg. 1	3	Bench	Wood	Intact	Gray	0.185
Negative	4	Bldg. 1	1	Rail	Metal	Intact	Brown	0.439
Negative	5	Bldg. 1	1	Support	Concrete	Intact	White	0.366
Negative	6	Bldg. 1	3	Rail	Metal	Intact	Brown	0.271
XRF								
Positive	7	Bldg. 1	3	Rail	Metal	Intact	Brown	3.361
Negative	8	Bldg. 1	4	Rail	Metal	Intact	Brown	0.352
Negative	9	Bldg. 1	1	Floor	Concrete	Poor	Gray	0.171
Negative	10	Bldg. 1	1	Canopy	Metal	Intact	Gray	-0.209
XRF								
Positive	11	Bldg. 19	1	Rail	Metal	Intact	Brown	2.467
XRF								
Positive	12	Bldg. 19	1	Rail	Metal	Intact	Yellow	4.797
Negative	13	Bldg. 19	1	Canopy	Metal	Intact	Red	-0.073
Negative	14	Bldg. 20	1	Door Molding	Wood	Poor	Gray	0.055
Negative	15	Bldg. 20	1	Wall	Metal	Intact	White	-0.044
				Window				
Negative	16	Bldg. 20	1	Molding	Metal	Intact	Gray	-0.069
				Window				
Negative	17	Bldg. 20	2	Molding	Metal	Intact	Gray	-0.301
				Window				
Negative	18	Bldg. 20	3	Molding	Metal	Intact	Gray	-0.113
Negative	19	Bldg. 7	1	Rail	Metal	Intact	Brown	0.241
Negative	20	Bldg. 7	1	Wall	Wood	Intact	Gray	0.197
				Window				
Negative	21	Bldg. 7	1	Molding	Wood	Intact	Gray	-0.046
XRF								
Positive	22	Bldg. 7	1	Lower Wall	Concrete	Intact	Gray	1.547
Negative	23	Bldg. 7	1	Rail	Metal	Intact	Brown	0.507
Negative	24	Bldg. 7	1	Rail	Metal	Intact	Brown	0.013
XRF								
Positive	25	Bldg. 8	1	So. Rail	Metal	Intact	Gray	7.844
Negative	26	Bldg. 8	1	So. Window	Wood	Poor	Gray	-0.1
Negative	27	Bldg. 6	3	Door	Wood	Intact	White	-0.512
				Window				
Negative	28	Bldg. 6	1	Molding	Wood	Intact	Brown	0.107
				Window				
Negative	29	Bldg. 6	1	Molding	Metal	Intact	Brown	-0.259
Negative	30	Bldg. 6	1	Wall	Concrete	Intact	Gray	-0.033

XRF								
Positive	31	Bldg. 6	1	Garage Door	Wood	Poor	White	8.56
XRF								
Positive	32	Bldg. 6	2	South Window	Metal	Intact	Gray	15.108
Negative	33	Bldg. 6	1	Wall	Wood	Intact	Yellow	-0.004
Negative	34	Bldg. 6	3	East Window	Wood	Poor	Brown	-0.04
XRF								
Positive	35	Bldg. 6	3	North Window	Metal	Intact	Brown	18.526
Negative	36	Bldg. 26	1	Wall	Metal	Poor	Gray	0.987
Negative	37	Bldg. 26	1	Wall	Metal	Poor	Gray	0.179
XRF								
Positive	38	Bldg. 26	1	Wall	Metal	Poor	Gray	1.042
Negative	39	Bldg. 26	1	Wall	Metal	Poor	Gray	0.57
XRF								
Positive	42	Bldg. 15	1	Door	Wood	Poor	Brown	10.021
XRF				Window				
Positive	44	Bldg. 15	3	Molding	Metal	Intact	White	5.902
Negative	50	Bldg. 25	1	Wall	Metal	Intact	Green	0.882
XRF								
Positive	51	Bldg. 18	1	Door	Wood	Poor	Gray	4.96
XRF								
Positive	52	Bldg. 18	4	Window Sill	Metal	Intact	White	3.453
XRF								
Positive	55	Bldg. 7	2	Window Sill	Metal	Intact	White	2.405
XRF								
Positive	56	Bldg. 7	3	Window Sill	Metal	Intact	White	1.7
XRF								
Positive	57	Bldg. 7	3	Window Sill	Metal	Intact	White	3.927
Negative	58	Bldg. 7	1	Fence	Wood	Poor	White	0.054
Negative	59	Bldg. 7	1	Fence	Wood	Poor	White	0.067
Inconclusive		Calibration	*	*	*	*	*	1.021
Inconclusive		Calibration	*	*	*	*	*	1.031
Inconclusive		Calibration	*	*	*	*	*	1.068

Retest on April 7, 2010

result	id	roomdesc	WI	Compdesc	subdesc	conddesc	colordesc	k_gen
Unknown	#	Calibration	*	*	*	*	*	0
Inconclusive		Calibration	*	*	*	*	*	1.045
Inconclusive		Calibration	*	*	*	*	*	1.087
Inconclusive		Calibration	*	*	*	*	*	1.015
								-
Negative	58	Bldg. 8	3	Louvre Panel	Wood	Intact	Gray	0.029
Negative	59	Bldg. 25	2	Cage	Metal	Intact	Yellow	0.518
Negative	60	Bldg. 18	2	Wall Panels	Metal	Intact	White	0.002
				Window				
Negative	61	Bldg. 19	3	Molding	Metal	Intact	Black	0.393
Inconclusive		Calibration	*	*	*	*	*	0.941
Inconclusive		Calibration	*	*	*	*	*	1.102
Inconclusive		Calibration	*	*	*	*	*	1.003

POSITIVE ASSAYS

XRF								
Positive	7	Bldg. 1	3	Rail	Metal	Intact	Brown	3.361
XRF								
Positive	11	Bldg. 19	1	Rail	Metal	Intact	Brown	2.467
XRF								
Positive	12	Bldg. 19	1	Rail	Metal	Intact	Yellow	4.797
XRF								
Positive	22	Bldg. 7	1	Lower Wall	Concrete	Intact	Gray	1.547
XRF								
Positive	25	Bldg. 8	1	So. Rail	Metal	Intact	Gray	7.844
XRF								
Positive	31	Bldg. 6	1	Garage Door	Wood	Poor	White	8.56
XRF								
Positive	32	Bldg. 6	2	South Window	Metal	Intact	Gray	15.108
XRF								
Positive	35	Bldg. 6	3	North Window	Metal	Intact	Brown	18.526
XRF								
Positive	38	Bldg. 26	1	Wall	Metal	Poor	Gray	1.042
XRF								
Positive	42	Bldg. 15	1	Door	Wood	Poor	Brown	10.021
XRF				Window				
Positive	44	Bldg. 15	3	Molding	Metal	Intact	White	5.902
XRF								
Positive	51	Bldg. 18	1	Door	Wood	Poor	Gray	4.96
XRF								
Positive	52	Bldg. 18	4	Window Sill	Metal	Intact	White	3.453
XRF								
Positive	55	Bldg. 7	2	Window Sill	Metal	Intact	White	2.405
XRF								
Positive	56	Bldg. 7	3	Window Sill	Metal	Intact	White	1.7
XRF								
Positive	57	Bldg. 7	3	Window Sill	Metal	Intact	White	3.927

POSITIVE DETERIORATED

XRF Positive	31	Bldg. 6	1	Garage Door	Wood	Poor	White	8.56
XRF Positive	38	Bldg. 26	1	Wall	Metal	Poor	Gray	1.042
XRF Positive	42	Bldg. 15	1	Door	Wood	Poor	Brown	10.021
XRF Positive	51	Bldg. 18	1	Door	Wood	Poor	Gray	4.96

ATTACHMENT B
CO Lead Inspector/Risk Assessor Certification



STATE OF COLORADO

LEAD-BASED PAINT CERTIFICATION*

Colorado Department of Public Health
and Environment
Air Pollution Control Division

This certifies that

Thomas K. Petty

Certification No: 8903

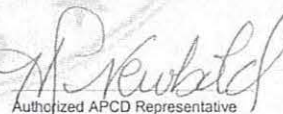
has met the requirements of 25-7-1104, C.R.S. and Air Quality Control
Commission Regulation No. 19, and is hereby certified by the state of
Colorado in the following discipline:

Inspector/Risk Assessor*

Issued: 3/7/2009

Expires on: 3/7/2012

* This certificate is valid only with the possession of a valid lead-based paint training certificate in the discipline
specified above, issued by either a Colorado approved training provider, an EPA approved training provider, or a
training provider approved by another EPA authorized program.


Authorized APCD Representative

SEAL

STATE OF COLORADO

Colorado Department of Public Health
and Environment
Air Pollution Control Division

Lead Evaluation Firm Certificate

This certifies that

Accurate Lead Testing

LEF No. : 52-1308194

has met the requirements of 25-7-1104, C.R.S. and Air Quality
Control Commission Regulation No. 19, and is hereby certified by
the state of Colorado to perform lead-based paint evaluation
activities in the state of Colorado.

Issued: 6/12/2009

Expires on: 6/12/2010

Record Number: 10987


Authorized APCD Representative

SEAL

ATTACHMENT C
Scope of Work



Scope of Work

Bldg. 1

1. East/Clermont Entrance
 - a. Paint handrails and ramp inside, top and outside walls
2. West/Biomed
 - a. (W) Remove and replace staircase and handrail outside biomed

Bldg. 6

1. All around
 - a. Scrape, clean, prime and paint existing metal window frames (approx. 12 units)

Bldg. 7

1. East
 - a. Remove/replace handrail
 - b. New handrail at front entrance
2. South
 - a. scrape, clean, prime and paint handrail
3. North
 - a. Remove/replace concrete steps and rail

Bldg. 8

1. East
 - a. Scrape, clean, prime and paint around louver over metal man door at SE corner
2. South
 - a. Remove existing handrail on ledge

Bldg. 15

1. East, South and West
 - a. Scrape and paint existing steel window units with single pane glass
2. North
 - a. Scrape and paint existing steel door

Bldg. 18

1. East
 - a. Replace metal panels and repaint
 - b. Replace 2 wood garage doors
2. West
 - a. Scrape, clean, prime and paint window frames and mullions

Bldg. 19

1. South
 - a. Remove/replace double glazed windows with integral blinds
2. West
 - a. Refinish exterior of metal lean-to on 1st floor
3. North
 - a. Replace exterior stairs (red) and bent railing (yellow) at stairs

Bldg. 20

1. East, South West
 - a. Scrape, clean, prime and paint existing steel window frames and mullions
2. North
 - a. New hollow metal door/frame and hardware

Bldg. 25

1. All around
 - a. Entire bldg. to be scraped, cleaned, primed and painted
2. East
 - a. Metal cage to be scraped, cleaned, primed and painted

Bldg. 26

1. All around

a. Entire bldg. to be scraped, cleaned, primed and painted, including steel doors and frames(2)

Bldg. 38

1. Roof

a. Scrape, clean, prime and paint outdoor air handling units (approx. 2)